

REMARKS

Claims 1-2, 7, and 10-11 are being amended to obviate the Examiner's rejection based on 35 U.S.C. 112, second paragraph.

The amendments to the claims presented herein do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, the Examiner is respectfully requested to enter these amendments.

1. Rejection of Claims 1-9 Under 35 U.S.C. §112

The Office Action states claims 1-9 are indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action states,

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite weight percents of components but fail to set forth the total weight upon which the percents are based. Therefore, the weight percents of components are not clearly set forth. The phrase 'percent by weight' in parentheses is not considered to be a positive recitation because it is in parentheses. It is suggested that, in claims 1, 6 and 9, the phrase 'comprising (percent by weight)' be replaced with 'comprising, in percent by weight.' Additionally, the total weight upon which the percents by weight are based, such as 'in percent by weight based on the total weight of components 1) and 2)', should be clearly recited in the claims.

RESPONSE

Applicant has amended claims 1-2, 7, and 10-11 to obviate the Examiner's rejection. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejection.

2. Rejection of Claims 1-11 Under 35 U.S.C. §103(a)

The Office Action states that claims 1-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over Moriya, et al. (U.S. Patent 6,214,934). In particular, the Office Action states,

The reference to Moriya et al shows the manufacture of a polymer blend of '50 to 85% by weight of a crystalline polypropylene' having a melt flow rate of 7 to 70/g/10 min., overlapping at 25 g/10 min or higher, with an ethylene/ α -olefin having α -olefin monomers in the range of '10 to 40 mol%, ' as shown at column 7 (lines 1-4). Further, note column 6 (lines 55-68), and column 3 (line 30) to column 4 (line 36). Moriya et al do not disclose the properties set forth in instant claims 5 and 6. However, the properties of the disclosed resin compositions would be expected to be the same in the absence of evidence to the contrary. The reason is that the components of the compositions and the weight percents of the polypropylene copolymer and ethylene copolymer are taught in the reference.

Once a reference teaching a product appearing to be substantially identical is made the basis of a rejection and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980). In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). In re Schreiber, 128 F.3d 1473, 1478, 44 USPQ2d 1429, 1432 (Fed. Cir. 1997).

RESPONSE

Applicant respectfully traverses the rejection of claims 1-11.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142 and §2143.

As such, Applicant respectfully believes the Examiner has not established a *prima facie* case of obviousness.

As stated by the Examiner in the currently pending Office Action on page 4, line 10 - page 5, line 2,

The reference to Moriya et al shows the manufacture of a polymer blend of '50 to 85% by weight of a crystalline polypropylene' having a melt flow rate of 7 to 70/g/10 min., overlapping at 25 g/10 min or higher, with an ethylene/ α -olefin having α -olefin monomers in the range of '10 to 40 mol%', as shown at column 7 (lines 1-4). Further, note column 6 (lines 55-68), and column 3 (line

30) to column 4 (line 36). Moriya et al do not disclose the properties set forth in instant claims 5 and 6. However, the properties of the disclosed resin compositions would be expected to be the same in the absence of evidence to the contrary. The reason is that the components of the compositions and the weight percents of the polypropylene copolymer and ethylene copolymer are taught in the reference.

However, Applicant respectfully believes Moriya, et al. fails to disclose, teach, or suggest, "Polyolefin compositions comprising, in percent by weight based on a total weight of the polyolefin compositions:

- 1) 55-80% of a crystalline propylene homopolymer or copolymer containing up to 15% of at least one of ethylene and C₄-C₁₀ α -olefin(s) and having a MFR value (230 °C, 2.16 kg) of at least 15 g/10 min; and
- 2) 20-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 10 to 40% of said C₄-C₁₀ α -olefin(s);

said compositions having MFR (230°C, 2.16 kg) values of at least 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 4.5% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, and an intrinsic viscosity value of a fraction soluble in xylene at room temperature of at most 1.7 dl/g."

In particular, Applicant respectfully believes Moriya, et al. fails to disclose, teach, or suggest Applicant's currently claimed polyolefin compositions comprising 2) **20-45% of a copolymer of**

ethylene with at least one of C₄-C₁₀ α-olefin(s) containing from 10 to 40% of said C₄-C₁₀ α-olefin(s).

In fact, Applicant respectfully believes Moriya, et al. clearly discloses a polypropylene resin composition for use in automotive inner and outer trims comprising:

50 to 85% by weight of a crystalline polypropylene (A) having a melt flow rate (230°C under a load of 2.16 kg) of 7 to 70 g/10 min,

2 to 16% by weight of a hydrogenated block copolymer (B) obtained by hydrogenating at a hydrogenation ratio of at least 90% an aromatic vinyl/conjugated diene block copolymer which contains an aromatic vinyl block polymer unit derived from an aromatic vinyl in an amount of 22% by weight or less and has a melt flow rate (230°C under a load of 2.16 kg) of at least 5 g/10 min,

0 to 16% by weight of a hydrogenated block copolymer (C) obtained by hydrogenating at a hydrogenation ratio of at least 90% an aromatic vinyl/conjugated diene block copolymer which contains an aromatic vinyl block polymer unit derived from an aromatic vinyl in an amount of at least 25% by weight and has a melt flow rate (230°C under a load of 2.16 kg) of 10 g/10 min or less,

0 to 10% by weight of an aromatic hydrocarbon copolymer (D),

0 to 10% by weight of a crystalline polyethylene (E),

0 to 10% by weight of a soft ethylene/α-olefin, copolymer (F),

and

5 to 25% by weight of an inorganic filler (G) having an average particle size of 0.1 to 3 μm . See col. 2, lines 20-50.

Accordingly, Applicant respectfully believes Moriya, et al. fails to disclose, teach or suggest Applicant's currently claimed polyolefin compositions comprising 2) **20-45% of a copolymer of ethylene** with at least one of $\text{C}_4\text{-C}_{10}$ α -olefin(s) containing from 10 to 40% of said $\text{C}_4\text{-C}_{10}$ α -olefin(s).

Notwithstanding the above, Applicant respectfully believes Moriya, et al. fails to disclose, teach, or suggest Applicant's currently claimed polyolefin compositions comprising, in part,

- (i) MFR (230 $^{\circ}\text{C}$, 2.16 kg) values of at least 15 g/10 min,
- (ii) a total content of ethylene of 20% or more,
- (iii) a total content of $\text{C}_4\text{-C}_{10}$ α -olefin(s) of 4.5% or more,
- (iv) a ratio of the total content of ethylene to the total content of $\text{C}_4\text{-C}_{10}$ α -olefin(s) of 2.3 or more, and
- (v) an intrinsic viscosity value of a fraction soluble in xylene at room temperature of at most 1.7 dl/g.

In fact, Applicant respectfully believes the Examiner has not identified *where* and *how* Moriya, et al. necessarily discloses or suggests each of (i)-(v), and/or if any of (i)-(v) are not necessarily disclosed by Moriya, et al., *why* one having ordinary skill in the art would have modified Moriya, et al. to arrive at Applicant's currently claimed polyolefin compositions comprising (i)-(v), and *why* one having ordinary skill in the art would have expected to be successful in modifying Moriya, et al. However, this

is the Examiner's initial burden to establish a *prima facie* case of obviousness. See MPEP §2142, §2143, §2143.01, §2143.02, and §2143.03. Accordingly, for this reason alone, Applicant respectfully believes the current rejection should be withdrawn.

Additionally, with respect to currently pending claims 5 and 6, the Office Action states on page 4, line 14 - page 5, line 2,

Moriya et al do not disclose the properties set forth in instant claims 5 and 6. However, the properties of the disclosed resin compositions would be expected to be the same in the absence of evidence to the contrary. The reason is that the components of the compositions and the weight percents of the polypropylene copolymer and ethylene copolymer are taught in the reference.

However, as discussed *supra*, Applicant respectfully believes Moriya, et al. fails to disclose, teach, or suggest Applicant's currently claimed polyolefin compositions comprising 2) **20-45% of a copolymer of ethylene** with at least one of C₄-C₁₀ α-olefin(s) containing from 10 to 40% of said C₄-C₁₀ α-olefin(s). As such, Applicant respectfully traverses the Examiner's contention that (a) "the weight percents of the polypropylene copolymer and ethylene copolymer are taught in the reference [Moriya, et al.]," and (b) "the properties of the disclosed resin compositions would be expected to be the same".

In fact, Applicant respectfully believes since Moriya, et al. fails to disclose, teach, or suggest Applicant's currently claimed polyolefin compositions comprising 2) **20-45% of a copolymer of ethylene** with at least one of C₄-C₁₀ α-olefin(s) containing from 10 to 40% of said C₄-C₁₀ α-olefin(s), Applicant respectfully believes

that Moriya, et al. does not disclose, expressly or otherwise, Applicant's currently pending claims 5 and 6.

In light of the above, claims 1-11 are therefore believed to be patentable over Moriya, et al. Accordingly, allowance of the claims is earnestly requested.

3. Double Patenting Rejection

The Office Action states,

Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/499,182 (US 2006/0047071), newly cited. Although the conflicting claims are not identical, they are not patentably distinct from each other because the compositions are identically claimed. Claims 1, 7 and 10 recite melt flow rates, intrinsic viscosity values and monomer ratios that would be embraced by the reference compositions, as shown by the reference claims 2-5.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

RESPONSE

Applicant kindly request the Examiner to hold this rejection in abeyance since neither application has issued as a patent.

4. Double Patenting Rejection

The Office Action states,

Claims 1-11 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of copending Application No. 10/518,692 (US 2006/0041072), newly cited. Although the conflicting claims are not identical, they are not

patentably distinct from each other because the compositional limitations overlap and include identical elements as recited herein having identical physical characteristics. Manipulation of the compositional limitations are within the skill of the artisan.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

RESPONSE

Applicant kindly request the Examiner to hold this rejection in abeyance since neither application has issued as a patent.

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections and allow all pending claims 1-11. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practitioner with any questions or comments if it is believed such contact will expedite prosecution for this application.

Serial No. 10/518,882

Respectfully submitted,

By: 

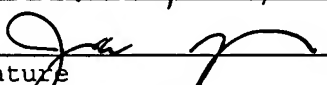
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Date



ATTACHMENT A

(Currently amended): Polyolefin compositions comprising, in percent by weight based on a total weight of the polyolefin compositions ~~(percent by weight)~~:

- 1) 55-80% of a crystalline propylene homopolymer or copolymer containing up to 15% of at least one of ethylene and C₄-C₁₀ α -olefin(s) and having a MFR value (230 °C, 2.16 kg) of at least 15 g/10 min; and
- 2) 20-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 10 to 40% of said C₄-C₁₀ α -olefin(s);

said compositions having MFR (230 °C, 2.16 kg) values of at least 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 4.5% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, and an intrinsic viscosity value of a fraction soluble in xylene at room temperature of at most 1.7 dl/g.

2. (Currently amended): The polyolefin compositions according to claim 1 comprising, in percent by weight based on a total weight of the polyolefin compositions ~~(percent by weight)~~:

- 1) 55-75% of a crystalline propylene homopolymer or copolymer containing up to 15% of at least one of ethylene and C₄-C₁₀ α -olefin(s) and having a MFR from 15 to 80 g/10 min; and
- 2) 25-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 20 to

40% of said C₄-C₁₀ α -olefin(s);
said compositions having MFR (230 °C, 2.16 kg) values at least 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 6% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, a total fraction soluble in xylene at room temperature of 18 wt% or higher, and an intrinsic viscosity value of the fraction soluble in xylene at room temperature of at most 1.7 dl/g.

3. (Previously presented): The polyolefin compositions of claim 1, having MFR values of at least 30 g/10 min.

4. (Original): The polyolefin compositions of claim 1, wherein the intrinsic viscosity of the fraction soluble in xylene at room temperature is in the range from 0.8 to 1.5 dl/g.

5. (Previously presented): The polyolefin compositions of claim 1, wherein the fraction soluble in xylene at room temperature is higher than 20%.

6. (Previously presented): The polyolefin compositions of claim 1, having a ductile/brittle transition temperature of at most 35 °C.

7. (Currently amended): A process for producing polyolefin compositions, which comprise in percent by weight, based on a total weight of the polyolefin compositions:

- 1) 55-80% of a crystalline propylene homopolymer or copolymer containing up to 15% of at least one of

ethylene and C₄-C₁₀ α -olefin(s) and having a MFR value (230 °C, 2.16 kg) of at least 15 g/10 min; and

- 2) 20-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 10 to 40% of said C₄-C₁₀ α -olefin(s);

said compositions having MFR (230 °C, 2.16 kg) values at least 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 4.5% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, and an intrinsic viscosity value of a fraction soluble in xylene at room temperature of at most 1.7 dl/g, the process being carried out in at least two sequential steps, wherein in at least one polymerization step the relevant monomer(s) are polymerized to form component 1) and in the other step the relevant monomers are polymerized to form component 2), operating in each step, except the first step, in the presence of the polymer formed and the catalyst used in the preceding step.

8. (Previously presented): The process of claim 7, wherein the polymerization catalyst is a stereospecific Ziegler-Natta catalyst comprising, as catalyst-forming components, a solid component comprising a titanium compound having at least one titanium-halogen bond and an electron-donor compound, both supported on a magnesium halide in active form, and an organoaluminum compound.

9. (Previously presented): The process of claim 7, wherein both components 1) and 2) are prepared in gas phase.

10. (Currently amended): Injection moulded articles comprising polyolefin compositions, which comprise in percent by weight, based on a total weight of the polyolefin compositions:

- 1) 55-80% of a crystalline propylene homopolymer or copolymer containing up to 15% at least one of ethylene and C₄-C₁₀ α -olefin(s) and having a MFR value (230 °C, 2.16 kg) of at least 15 g/10 min; and
- 2) 20-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 10 to 40% of said C₄-C₁₀ α -olefin(s);

said compositions having MFR (230 °C, 2.16 kg) values at least 15 g/10 min, a total content of ethylene of 20% or more, a total content of C₄-C₁₀ α -olefin(s) of 4.5% or more, a ratio of the total content of ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3 or more, and an intrinsic viscosity value of a fraction soluble in xylene at room temperature of at most 1.7 dl/g.

11. (Currently amended): The polyolefin compositions according to claim 2 comprising , in percent by weight based on a total weight of the polyolefin compositions ~~(percent by weight)~~:

- 1) 55-70% of a crystalline propylene homopolymer or copolymer containing up to 15% of at least one of ethylene and C₄-C₁₀ α -olefin(s) and having a MFR value of from 15 to 80 g/10 min; and
- 2) 30-45% of a copolymer of ethylene with at least one of C₄-C₁₀ α -olefin(s) containing from 20 to

40% of said C₄-C₁₀ α -olefin(s);
said compositions having values of MFR (230 °C, 2.16 kg)
equal to or higher than 15 g/10 min, a total content of
ethylene of 20% or more, a total content of C₄-C₁₀ α -
olefin(s) of 6% or more, a ratio of the total content of
ethylene to the total content of C₄-C₁₀ α -olefin(s) of 2.3
or more, a total fraction soluble in xylene at room
temperature of 18 wt% or higher, and an intrinsic viscosity
value of a fraction soluble in xylene at room temperature
of at most 1.7 dl/g.